

REMARKS

Claim 1 is the sole claim in the application and stands finally rejected under 35 U.S.C. §103(a) as being unpatentable over Obermayer, et al. (DE 3841203) in view of Fatt.

The Examiner is respectfully requested to reconsider the rejection of claim 1 as per the above combination of references in view of the amendment hereof to the claim. Particularly, the claim, as amended, specifically requires that the enlarged end portions 86a integrally formed at opposite ends of the bar-shaped seal member 86 are entirely filled in the enlarged recesses 87a which are provided only in first and second case halves 6L and 6R of a crankcase 6. This structural feature is clearly shown in Figures 7 and 8 of the application by way of example.

It is submitted that claim 1, particularly as now amended, clearly distinguishes over the cited references because the involved point of issue is whether a sealing structure at a location where three components, i.e., the lower end face of cylinder block 7 and cooperating end faces of first and second case halves 6L and 6R mate together is made obvious by the combination of the Obermayer, et al. and Fatt references. It is submitted that such combination of references fails to disclose the claimed invention which embodies the following advantageous features:

1. enlarged recesses 87a are provided only in the first and second case halves 6L, 6R to be surrounded by the cylinder block 7 (lower end face) and the first and second case halves;
2. enlarged end portions 86a of a bar-shaped seal member 86 are entirely filled in the enlarged recesses 87a;
3. a gasket 85 is interposed between the lower end face of the cylinder block 7 and cooperating end surfaces on the first and second case halves 6L, 6R to come into close contact with upper and end faces of the enlarged end portion 86a; and
4. a T-shaped intersecting joint area among the cylinder block 7 and the first and second case halves 6L, 6R is sealed by the seal member gasket 65.

That is, the T-shaped intersecting joint area defined by the cylinder block lower end face and cooperating end surfaces of the first and second case halves is effectively sealed by:

a) enlarged end portions 86a of a bar-shaped seal member 86 being entirely filled in the respective enlarged recesses 87a that are provided only in the first and second case halves 6L and 6R; and

b) a gasket 85 interposed between the lower end face of the cylinder block 7 and cooperating end surfaces on the first and second case halves 6L and 6R.

Thus, in the practice of the present invention there is no necessity to apply any working to the lower end face of the cylinder block 7 for the application of such seal structure. This simplifies the processing steps; reduces the costs associated therewith; and simplifies the mounting work of the seal member. The illustrated embodiment particularly shows that only one of first and second case halves 6L or 6R is processed to provide a groove 87 and enlarged end portions 87a for receiving the seal member, and the other two components need not be specifically processed for this purpose.

By contrast, the primary reference, Obermayer et al. specifically shows in the drawings that the cylinder block 4 has to be processed for providing a space 7 therein for receiving the end of seal member 6 in Figure 4. Fatt similarly shows a specifically configured end portion 30, 35 of a seal member 28 for providing a seal at the location where the upper rear main bearing support 16, flange 25 and oil pan flange 38 mate together (see particularly Figures 1, 6 and 7). Fatt also shows the saddle shaped portion 15 being provided on the upper support 16 for receiving the upstanding projection 35 of the seal. Consequently, Fatt fails to give any hint to those skilled in the art for making the cylinder block free of the formation of any recessed portions therein for receiving an enlarged end portion of a seal.

For the foregoing reasons, therefore, it is submitted that the combination of the cited two references does not enable those skilled in the art to arrive at the construction embodied in the amended claim 1.

In view of the above, Applicants respectfully request that the Examiner enter this Amendment in the case and pass the application to issue. In the event the Examiner is constrained to retain the rejection of claim 1, it is requested that the Examiner nonetheless enter the amendment to claim 1 herein in order to place the application in better condition for appeal.

On the other hand, however, if the Examiner finds that minor revision is still required to render the claim satisfactory, it is requested that he call the Applicants' attorney at the telephone number indicated below in order to expedite the changes required to place the application in condition for allowance.


Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

U.S. Patent Application Serial No. 09/901,566

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made

H:\FLOATERS\JFC\01\010698\2nd amendment

IN THE CLAIMS:

Claim 1 was **AMENDED** as follows:

1. (AMENDED) A seal structure in an engine body, comprising:

a crankcase which has a crank chamber and which is coupled to a lower end face of a cylinder block having a cylinder bore, the crankcase being comprised of first and second case halves having oppositely facing joint surfaces coupled to each other in a plane extending perpendicular to the lower end face of said cylinder block, wherein one of the joint surfaces of said first and second case halves includes a U-shaped seal groove extending along a peripheral edge of said crank chamber, and wherein enlarged recesses are provided only in the first and second case halves extend laterally from opposite ends of said seal groove to be surrounded by the cylinder block and the first and second case halves;

a bar-shaped seal member mounted in said seal groove to come into close contact with the other of said joint surfaces of the first and second case halves such that enlarged end portions integrally formed at opposite ends of said bar-shaped seal member are entirely filled in the enlarged recesses; and

a gasket interposed between the lower end face of said cylinder block and cooperating end surfaces on said first and second case halves to come into close contact with upper end faces of said enlarged end portions, whereby a T-shaped intersecting joint area among said cylinder block and said first and second case halves is sealed by said seal member and said gasket.